

32ND RTCM SEMINAR

July 1, 2022
Coimbra



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32nd RTCM Seminar

Coimbra, Jul 1, 2022

- Program -

(09:30-09:35) Opening

(09:35-10:20) **Keynote 1**

(10:20-11:00) Technical Session 1

(11:00-11:30) Coffee-break

(11:30-12:30) Technical Session 2

(12:40-14:00) Lunch

(14:00-14:45) **Keynote 2**

(14:45-15:25) Technical Session 3

(15:25-15:55) Short Talks

(15:55-16:20) Coffee-break

(16:20-17:30) Panel

(17:30-17:45) Closing Session

(17:45-18:00) RTCM Committee meeting



<https://rtcm.inesctec.pt/eventos/32o-seminario/>

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Keynote 1

Space: New Frontier for Business

Miguel Belló Mora (CEO of AirCentre)

Moderator: Marco Gomes (DEEC, FCTUC)

Miguel Belló is CEO of the Atlantic International Research Centre (AIR Centre), international non-profit organization to develop scientific and technological applications in the Atlantic region with Headquarters in Azores Islands (Portugal). Miguel has been entrepreneur in the European Space sector involved in the management of International Space Programs and Institutions with 40 years of experience in the space sector. Promoter of the DEIMOS 1 (launch 2009) and DEIMOS 2 (launch 2014) Earth Observation satellites and responsible of its operations and downstream applications. Miguel was founder and CEO of all companies in DEIMOS Group in Spain, Portugal, United Kingdom, Romania and Italy. He is expert in Space Systems Engineering, Earth Observation systems and applications, Mission Analysis, Flight Dynamics, Interplanetary Mission Design and Space Debris. Miguel holds a PhD in Aerospace Engineering at the Flugmechanik Institut, Zentrum für Luft- und Raumfahrttechnik, Technische Universität Braunschweig (Germany), in 1993, a M.S. Degree in Aeronautical Engineering, at Universidad Politécnica de Madrid, in 1983, with end of Studies Honour Award and a General Management Programme (MBA), in 2000-2001, at IESE (Madrid). Miguel is member of the Board of Trustees and Full Member for Section 2 (Engineering Sciences) of the International Academy of Astronautics (IAA), Member of the Astrodynamics Committee of the International Astronautical Federation (IAF), Chairman of the Mission and Constellation Design Session of the IAC Astrodynamics Symposium and member of the Space Traffic Management Committee of the IAA. Miguel was also Member of the European Space Agency Space Debris Advisory Group (SDAG) and Invited Professor on Space Debris Environment at the Universidad Politécnica in Madrid and Celestial Mechanics at La Sapienza University in Rome.

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Technical Session 1

(10:20-11:00)

Session Chair: Karima Velasquez (FCTUC/CISUC)

- **“SALEM: Service Fairness in Wireless Mesh Environments”**, Henrique Silva, Noé Godinho, Bruno Sousa
- **“Demonstration of a MEC Infrastructure deployment with OSM”**, Pedro Escaleira, Miguel Mota, Diogo Gomes, João Paulo Barraca

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Technical Session 2

(11:30-12:30)

Session Chair: TBA

- **“Machine Learning based Propagation Loss Module for ns-3”**, Eduardo N. Almeida, Gonçalo Santos, Helder Fontes, Rui Campos et al.
- **“Satellite-less solutions for UAV Navigation in Smart Cities”**, Ricardo Santos, João Pedro Matos Carvalho, Slavisa Tomic, Marko Beko, Sergio Correia
- **“Wireless Powered UAV Based Cooperative Relay Networks”**, Dushantha Nalin K. Jayakody and Tharindu D. P. Perera

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Keynote 2

Understand the moment in the Space Race 2.0

Ricardo Conde (President of PTSpace)

Moderator: Manuel Ricardo (FEUP/INESC TEC)

Ricardo Conde, holds a degree in Electrical and Computer Engineering from IST – Technical University of Lisbon and a postgraduate degree in Space Technologies. He began his professional career in 1991, having been linked to the Aeronautics and Space sector since 1993 with the participation in several National and International programs, in particular in Space and Ground segments. In 2019 Ricardo joined the Portuguese Space Agency, Portugal Space as a member of the board. About one year later, Ricardo Conde was appointed President of the Portuguese Space Agency.

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Technical Session 3

(14:45-15:25)

Session Chair: Helder Fontes (INESC TEC)

- **“An Approach to the Integrated Management of Machinery in the Construction Industry”**, Oscar Torres Sanchez, Duarte Raposo, André Rodrigues, Jorge Sá Silva, Fernando Boavida
- **“A Software Defined Vehicular Network using Cooperative Intelligent Transport System Messages”**, Duarte Dias, Miguel Luís, Pedro Rito e Susana Sargento

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Short Talks

(15:25-15:55)

Session Chair: Helder Fontes (INESC TEC)

- **“Placement and Allocation of Communications Resources in Slicing-aware Flying Networks”**, André Coelho, Helder Fontes, Rui Campos, Manuel Ricardo
- **“Implementing Channel Reuse in Multi-hop Communications for Teams of Cooperating Robots”**, Danilo Tardioli, Luis Almeida
- **“Assessing Link Quality Dynamically in Networks of Autonomous Agents”**, Livio Bisogni, Luis Almeida, Giorgio Buttazzo

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Panel

Space Communications – Challenges and Opportunities

Moderator: Nuno Borges de Carvalho (UA/IT)

“Optical Communications in Space”, Ivo Vieira (Lusospace)

“Examples of Deep Space Missions”, Jorge Almeida (Critical Software)

“Celestia Portugal: Company Profile”, Rui Policarpo Duarte (Celestia Portugal)

“Trends in the Satellite Communications Sector”, Teresa Ferreira (GMV)





**Thank you for your
participation!
Join us in the next RTCM.**

Vasco Pereira, Bruno Sousa, Miguel Luís, Filipe B. Teixeira, Rui Campos